



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/526,482

03/15/2000

Ryuichi Hori

2000 0274A

1658

7590

06/18/2004

Wenderoth Lind & Ponack LLP
2033 K Street NW
Suite 800
Washington, DC 20006

EXAMINER

GHEE, ASHANTI

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/526,482

Applicant(s)

HORI ET AL.

Examiner

Ashanti Ghee

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 21, 22, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 5-20, 23-34 and 37-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2626

DETAILED ACTION

1. This action is responsive to the following communications: amendment A filed on 3/23/04.
2. This application has been reconsidered. Claims 1-48 are pending.

Response to Arguments

3. Applicant's arguments, see page 19, lines 22-29 and page 20, lines 1-5 and page 21, lines 6-12, filed 3/23/04, with respect to the rejection(s) of claim(s) 1-48 under Cook and Mitsuhashi have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the main reference Sato et al. (US Patent No. 6,667,812 B1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 21-22, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US Patent No. 6,567,179) in view of Sato et al. (US Patent No. 6,667,812).

Regarding claim 1, Sato (US Patent No. 6,567,179) discloses a printer for connecting to a host information processor via a communication medium, the printer comprising: printer language specifications storage means (print data receiving buffer 205) for storing (buffers; col. 8, lines 47-52), under control (inherent in to permit communication therebetween) of an operating system (application program) operable on the host information processor (host computer 201; col. 8, lines 13-21), printer language specifications (print data) which indicate a correspondence between a plot object (character code reads on plot object) forming (creates) application print data (forms an image) generated (creates) at printing (forms an image on a recording paper reads on printing) by an application (application program, col. 8, lines 18-21) operable on the host information processor (host computer; col. 7, lines 47-col. 8, lines 1-4) and a printer language (print data) for printing (forms an image) the plot object (character code) on the printer (1000; col. 7, lines 47-65 and col. 8, lines 18-21); printer language specifications setting data generation means (formatted analyzing block 207) for reading (analyzes) the printer language specifications (print data) from said printer language specifications storage means (205) to generate (expands it into bit map data reads on to generate) printer language specifications setting data (print data) predetermined therefore (predetermined data analyzing process reads on predetermined therefore, see col. 11, lines 47-51; for entire limitation see col. 9, lines 13-30); language specifications setting data transmission processing start means (communication interface 203) for outputting (sends) the printer language specifications

setting data (print data) generated (created, col. 8, lines 18-21) by said printer language specifications setting data generation means (207).

Although Sato (US Patent No. 6,567,179) does not disclose predetermined timing or bi-directional communication means, Sato (US Patent No. 6,667,812) discloses a predetermined timing (predetermined timing; col. 5, lines 59-65); and bi-directional communication means (bi-directional interface 13) for receiving (acquired) the printer language specifications setting data (first printer environment data) for transmission (connected reads on transmission) to the host information processor (100; col. 9, lines 58-col. 10, lines 1-4).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato (6,567,179) with Sato (6,667,812) due to both references disclosing an information processing system that transmits data through a bi-directional interface to manage the printer environment for each language that is set once with good reproducibility with respect to the printer.

Regarding claim 2, Sato (US Patent No. 6,567,179) discloses a printer for connecting to a host information processor via a communication medium, the printer comprising: control language specifications storage means (control data receiving buffer 205) for storing (buffers), (inherent in to permit communication therebetween) of an operating system (application program) operable on the host information processor (host computer 201; col. 8, lines 13-21), control language specifications (control data) which indicate a correspondence between a control element forming application data (print information) generated (created) at printing (printer 202 reads on printing) by an

application (application program) operable on the host information processor (201; col. 8, lines 13-52) and a control language (control data) for setting the control element (print information) on the printer (202; col. 8, lines 13-46); control language specifications setting data generation means (control command analyzing block 208) for reading (analyzes) the control language specifications (print information) from said control language specifications storage means (206) to generate (forms) control language specifications setting data (control data) predetermined therefore (predetermined data analyzing process reads on predetermined therefore, see col. 11, lines 47-51; for entire limitation see col. 8, lines 13-62); language specifications setting data transmission processing start means (communication interface 203) for outputting (sends) the control language specifications setting data (control data) generated (forms, col. 8, lines 53-62) by said control language specifications setting data generation means (208).

Although Sato (US Patent No. 6,567,179) does not disclose a predetermined timing or a bi-directional communication means, Sato (US Patent No. 6,667,812) discloses with a predetermined timing (predetermined timing, col. 5, lines 59-66; for the entire limitation col. 6, lines 12-39); and bi-directional communication means (bi-directional interface 13) for receiving (acquired) the control language specifications setting data (printer control language) for transmission (connected reads on transmission) to the host information processor (100; col. 5, lines 59-col. 6, lines 1-39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato (6,567,179) with Sato (6,667,812) due to both references disclosing an information processing system that

transmits data through a bi-directional interface to manage the printer environment for each language that is set once with good reproducibility with respect to the printer.

Regarding claims 21 and 35, Sato (US Patent No. 6,567,179) discloses a printer driver provided in a host information processor be connected for connecting to a printer via a given communication medium, the printer driver comprising: communication data determination means (data recognition block 204) for determining (determines; col. 9, lines 13-29), under the control (inherent in control data) of an operating system (application program) operable on said the host information processor (host computer 201; col. 8, lines 18-21), whether or not the communication data (communication data) received (receives) is printer language specifications setting data (print data) which indicates a correspondence between a plot object forming application print data (character pattern, col. 7, lines 47-54) generated (creates, col. 7, lines 47-54) at printing (forms an image on recording medium, col. 7, lines 47-54) by an application (application program, col. 8, lines 18-21) operable on the host information processor (host computer 201, col. 8, lines 18-21) and a printer language (bit map data) for printing the plot object on the printer (printable by the printer engine 209 which reads on printing plot object on the printer; col. 9, lines 13-29); and printer language generation means (format analyzing block 207) for obtaining (received), according to the application print data (print information) at printing (inherent in printer engine 209), the printer language (print data) corresponding to the plot object (bit map data) from said printer settings storage means (buffer 205) to generate (expand in this reference reads on generate) printer language print data (print data) for transmission (sends) to the printer (printer engine

209; col. 9, lines 13-29); determined (determines) by said communication data determination means (204; col. 9, lines 13-29).

Although Sato (US Patent No. 6,567,179) does not disclose a bi-directional communication means or registering printer language specifications, Sato (US Patent No. 6,667,812) discloses bi-directional communication means (bi-directional interface 13) for receiving (inherent in bi-directional interface) communication data (executes communications with the host computer) from the printer (printer 1500; col. 5, lines 12-49); by said bi-directional communication means (bi-directional interface 13; col. 5, lines 12-49); printer language specifications setting means (printer environmental matching setting processing) for registering (is registered in) printer language specifications (printer drivers) according to said the printer language specifications setting data (printer control languages); printer settings storage means (printer driver file 11a) for storing (stores) the printer language specifications (printer drivers) according to registering (is registered) carried out by said printer language specifications setting means (printer environmental matching setting processing; col. 6, lines 40-61); via said bi-directional communication means (bi-directional interface 13; col. 5, lines 59-66).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato (6,567,179) with Sato (6,667,812) due to both references disclosing an information processing system that transmits data through a bi-directional interface to manage the printer environment for each language that is set once with good reproducibility with respect to the printer.

Regarding claims 22 and 36, Sato (US Patent No. 6,567,179) discloses a printer driver provided in a host information processor be connected for connecting to a printer via a given communication medium, the printer driver comprising: communication data determination means (data recognition block 204) for determining (determines; col. 9, lines 13-29), under the control (inherent in control data) of an operating system (application program) operable on said the host information processor (host computer 201; col. 8, lines 18-21), whether or not the communication data (communication data) received (receives) is control language specifications setting data (control data) which indicates a correspondence between a plot object forming application print data (character pattern, col. 7, lines 47-54) generated (creates, col. 7, lines 47-54) at printing (forms an image on recording medium, col. 7, lines 47-54) by an application (application program, col. 8, lines 18-21) operable on the host information processor (host computer 201, col. 8, lines 18-21) and a control language (control data) for printing the plot object on the printer (printable by the printer engine 209 which reads on printing plot object on the printer; col. 9, lines 13-29); and control language generation means (format analyzing block 207) for obtaining (received), according to the application print data (print information) at printing (inherent in printer engine 209), the control language (print data) corresponding to the plot object (control data) from said printer settings storage means (buffer 205) to generate (expand in this reference reads on generate) control language print data (control data) for transmission (sends) to the printer (printer engine 209; col. 9, lines 13-29); determined (determines) by said communication data determination means (204; col. 9, lines 13-29).

Although Sato (US Patent No. 6,567,179) does not disclose a bi-directional communication means or registering printer language specifications, Sato (US Patent No. 6,667,812) discloses bi-directional communication means (bi-directional interface 13) for receiving (inherent in bi-directional interface) communication data (executes communications with the host computer) from the printer (printer 1500; col. 5, lines 12-49); by said bi-directional communication means (bi-directional interface 13; col. 5, lines 12-49); printer language specifications setting means (printer environmental matching setting processing) for registering (is registered in) printer language specifications (printer drivers) according to said the printer language specifications setting data (printer control languages); printer settings storage means (printer driver file 11a) for storing (stores) the printer language specifications (printer drivers) according to registering (is registered) carried out by said printer language specifications setting means (printer environmental matching setting processing; col. 6, lines 40-61); via said bi-directional communication means (bi-directional interface 13; col. 5, lines 59-66).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato (6,567,179) with Sato (6,667,812) due to both references disclosing an information processing system that transmits data through a bi-directional interface to manage the printer environment for each language that is set once with good reproducibility with respect to the printer.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US Patent No. 6,567,179) in view of Yang (US Patent No. 6,687,019).

Regarding claim 3, Sato (US Patent No. 6,567,179) discloses the printer further comprising wherein said language specifications setting data transmission processing start means outputs the control language data received from said control language generation means to said bi-directional communication means with a predetermined timing (col. 8, lines 42-65 and col. 9, lines 58-col. 10, lines 1-4).

Although Sato (US Patent No. 6,567,179) does not specifically disclose control generation means for converting printer language specifications setting data, Yang discloses control language generation means for converting said printer language specifications setting data generated by said printer language specifications setting data generation means into control language in a predetermined format for output to said language specifications setting data transmission processing start means (col. 3, lines 17-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato and Yang due to both references disclosing a printing system that deals with multiple printing data to provide a printer with increased speed.

Regarding claim 4, Sato (US Patent No. 6,567,179) discloses wherein said language specifications setting data transmission processing start means outputs the control language data received from said control language generation means to said bi-directional communication means with a predetermined timing (col. 8, lines 42-65 and col. 9, lines 58-col. 10, lines 1-4).

Although Sato (US Patent No. 6,567,179) does not specifically disclose control language generation means converting control language specification setting data, Yang discloses the printer further comprising control language generation means for converting said printer language specifications setting data generated by said printer language specifications setting data generation means into control language in a predetermined format for output to said language specifications setting data transmission processing start means (col. 3, lines 17-38).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Sato and Yang due to both references disclosing a printing system that deals with multiple printing data to provide a printer with increased speed.

Allowable Subject Matter

7. Claims 5-20, 23-34, and 37-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Osada et al. (US Patent No. 6,600,569 B1) discloses a print control apparatus for analyzing and processing input print job data.

Mitsubishi (US Patent No. 6,320,667 B1) discloses an output control information generated by an application to output information in a spooler for analysis.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashanti Ghee whose telephone number is (703) 306-3443. The examiner can normally be reached on Mon-Thurs and alt. Fri. (7-4PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AG
June 14, 2004

Ashanti Ghee
Examiner
Art Unit 2626



KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER